

*Hawley's*

*Condensed Chemical*

*Dictionary*

**THIRTEENTH EDITION**

*Revised by*

Richard J. Lewis, Sr.



**VAN NOSTRAND REINHOLD**

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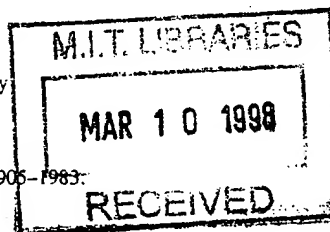
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**Use:** An antigellation agent for nitrocellulose-based bronzing lacquers and for stabilizing dipping lacquers.

**stabilizer.** Any substance that tends to keep a compound, mixture, or solution from changing its form or chemical nature. Stabilizers may retard a reaction rate, preserve a chemical equilibrium, act as antioxidants, keep pigments and other components in emulsion form, or prevent the particles in a colloidal suspension from precipitating. See inhibitor.

**"Staclipse" [Staley].** TM for specially processed, acid-modified, thin-boiling starches. Highly converted products having relatively high percentage of cold water-soluble fractions.

**Use:** Finishes and binders in textile wet processing; adhesives; paper industry for surface sizing, calender sizing, and coating.

**"Stacolloid" [Staley].** TM for a group of non-congealing sizing and finishing agents derived from corn starch.

**Use:** Sizing of spun synthetic, combed cotton, worsted yarns, and paper.

**"Stadex" [Staley].** TM for products of the partial hydrolysis of corn starch produced by heating the starch in a dry atmosphere in the presence of acid.

**Use:** Adhesives, binders, thickeners, sizing ingredients, stabilizers, bodying agents, and in edible products as carriers for color and flavor additives.

**Staedel-Rugheimer pyrazine synthesis.**

Formation of pyrazines by high-temperature autoclave reaction of  $\alpha$ -halogenomethyl ketones with ammonia.

**"Staflax Noda" [Mobay].** TM for *n*-octyl-*n*-decyl adipate.

**Properties:** Liquid.

**Use:** For electrical properties for outdoor wire and cable applications. In vinyls, combines good heat and light stability with high compatibility.

**stain.** (1) An organic protective coating similar to a paint, but with much lower solids content (pigment loading).

**Use:** Exterior and interior coating of wood, furniture, flooring, etc. (2) Any compound used to color bacteria for microscopic examination, e.g., osmium tetroxide, phosphotungstic acid, uranyl acetate, and certain chromium compounds.

**stainless steel.** See steel, stainless.

**"Staleydex" [Staley].** TM for a crystalline dextrose produced by an enzyme conversion process. Several types of dextrose are available varying from coarse particles to very fine dextrose monohydrate crystals, as well as liquid dextrose.

**Use:** Canning, brewing, confections, beverages, prepared mixes, pharmaceuticals, chemicals, and other industrial uses.

**standard cell.** See Weston cell.

**standard solution.** A solution of a specifically known concentration used in volumetric analysis.

**Stanley, Wendell M.** (1904–1971). An American biochemist who won the Nobel prize for chemistry in 1946 along with Northrop and Sumner. His work on virus research resulted in isolation of crystals proving the virus to be proteinaceous. In the 1930s, he was concerned with isolating nucleic acid from crystallized virus, and the reproduction of influenza virus. His doctorate was from the University of Illinois. His many accomplishments included membership in the National Advisory Cancer Council of the United States Public Health Service in the 1950s.

**stannic.** The designation for quadrivalent tin or compounds containing quadrivalent tin.

**stannic acid.** See stannic oxide.

**stannic anhydride.** See stannic oxide.

**stannic bromide.** (tin bromide; tin tetrabromide). CAS: 7789-67-5.  $\text{SnBr}_4$ .

**Properties:** White, crystalline mass. Fumes when exposed to air. D 3.3, bp 203°C, mp 31°C. Soluble in water, alcohol, and carbon tetrachloride.

**Hazard:** Irritant to skin and eyes. TLV (as Sn): 2 mg/m<sup>3</sup> of air.

**Use:** Mineral separations.

**stannic chloride.** (tin chloride; tin tetrachloride; tin perchloride).

CAS: 7646-78-8.  $\text{SnCl}_4$ . Often sold in the form of the double salt with sodium chloride:

$\text{Na}_2\text{SnCl}_6 \cdot \text{H}_2\text{O}$ .

**Properties:** Colorless, fuming, caustic liquid, that water converts into a crystalline solid,  $\text{SnCl}_4 \cdot 5\text{H}_2\text{O}$ . Keep well stoppered. D 2.2788, fp -33°C, bp 114°C. Soluble in cold water, alcohol, carbon disulfide; decomposed by hot water.

**Derivation:** Treatment of tin or stannous chloride with chlorine.

**Grade:** Technical, CP.

**Hazard:** Evolves heat on contact with moisture. Corrosive liquid. TLV (as Sn): 2 mg/m<sup>3</sup> of air.

**Use:** Electroconductive and electroluminescent coatings, mordant in dyeing textiles, perfume stabilization, manufacture of fuchsin, color lakes, ceramic coatings, bleaching agent for sugar, stabilizer for certain resins, manufacture of blueprint and other sensitized papers, other tin salts, bacteria and fungi control in soaps.